

Claims

1. A powder inhaler, comprising a powder container (1);
- 5 an air channel (11) through which air is drawn via a mouthpiece; a metering member (3) equipped with a dosing recess (5), the metering member (3) being movable between a filling position in which the dosing recess (5) is filled with powder, and an inhalation position, in which the filled dosing recess (5) is brought into the air channel (11), wherein the stream of inhaled air discharges the
- 10 dose of powder directly from the dosing recess (5); an actuating means (7) for the displacement of the metering member (3) between the filling and the inhalation position; and a closure element (16) adapted to plug the air channel (11) around the metering member (3) in a substantially water-proof manner, so as to protect the air channel
- 15 (11) around the metering member (3) from moisture, when the metering member (3) is in the filling position and to open the air channel (11) when the metering member (3) is in the inhalation position.
2. A powder inhaler according to claim 1, wherein the actuating means (7) communicates or is connected with the closure element (16).
- 20 3. A powder inhaler according to claim 1 or 2 comprising a first sealing means to secure the substantially water-proof plugging of the air channel (11) by the closure element (16).
4. A powder inhaler according to any of claims 1 - 3, wherein the closure element (16) is in the form of a closure plate connected to the actuating means (7).
- 25 5. A powder inhaler according to any of claims 1 - 3, wherein the closure element (16) is in the form of a pair of closure plates connected to the actuating means (7).
6. A powder inhaler according to claim 4 or 5, wherein the closure plate is equipped with a hole (17) and is slidably mounted across the air channel (11).
- 30 7. A powder inhaler according to any of claims 3 - 6, wherein the first sealing means comprises an elastic seal (18) fitted between the closure element (16) and the wall portion of the air channel (11) and means for pressing the closure element (16) tightly against the seal (18) when the inhaler is not actuated.
8. A powder inhaler according to claim 7 wherein the means for pressing the closure element (16) tightly against the seal (18) comprises a wedge-formed element
- 35 (20) extending from the closure plate and adapted to contact with the pushing surface (21) as the actuator returns to its rest position.
9. A powder inhaler according to any of claims 1 - 8, wherein the metering member (3) extends into the interior of the powder container (1).

10. A powder inhaler according to claim 9, wherein the metering member (3) is in the form of an axially movable metering rod equipped with a dosing recess (5).

11. A powder inhaler according to claim 10, wherein the actuating means (7) is a depressable device cover to which the metering rod is connected.

5 12. A powder inhaler according to any of claims 1 – 11 comprising a second sealing means (19) for providing substantially water-proof sealing between the actuating means (7) and the inhaler body (2) while allowing the movement of the actuating means in relation to the inhaler body (2).

10 13. A powder inhaler of claim 12, wherein the second sealing means (19) is in the form of an elastic tube comprising a corrugated wall.